| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/PageFormat.html) | [**Tree**](http://docs.google.com/package-tree.html) | [**Deprecated**](http://docs.google.com/deprecated-list.html) | [**Index**](http://docs.google.com/index-files/index-1.html) | [**Help**](http://docs.google.com/help-doc.html) | | --- | --- | --- | --- | --- | --- | --- | --- | | | ***Java™ Platform***  ***Standard Ed. 6*** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| [**PREV CLASS**](http://docs.google.com/java/awt/print/Pageable.html)   [**NEXT CLASS**](http://docs.google.com/java/awt/print/Paper.html) | [**FRAMES**](http://docs.google.com/index.html?java/awt/print/PageFormat.html)    [**NO FRAMES**](http://docs.google.com/PageFormat.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | [FIELD](#3znysh7) | [CONSTR](#2et92p0) | [METHOD](#tyjcwt) | DETAIL: [FIELD](#1t3h5sf) | [CONSTR](#3rdcrjn) | [METHOD](#lnxbz9) |

## **java.awt.print**

Class PageFormat

[java.lang.Object](http://docs.google.com/java/lang/Object.html)  
 **java.awt.print.PageFormat**

**All Implemented Interfaces:** [Cloneable](http://docs.google.com/java/lang/Cloneable.html)

public class **PageFormat**extends [Object](http://docs.google.com/java/lang/Object.html)implements [Cloneable](http://docs.google.com/java/lang/Cloneable.html)

The PageFormat class describes the size and orientation of a page to be printed.

| **Field Summary** | |
| --- | --- |
| static int | [**LANDSCAPE**](http://docs.google.com/java/awt/print/PageFormat.html#LANDSCAPE)            The origin is at the bottom left of the paper with x running bottom to top and y running left to right. |
| static int | [**PORTRAIT**](http://docs.google.com/java/awt/print/PageFormat.html#PORTRAIT)            The origin is at the top left of the paper with x running to the right and y running down the paper. |
| static int | [**REVERSE\_LANDSCAPE**](http://docs.google.com/java/awt/print/PageFormat.html#REVERSE_LANDSCAPE)            The origin is at the top right of the paper with x running top to bottom and y running right to left. |

| **Constructor Summary** | |
| --- | --- |
| [**PageFormat**](http://docs.google.com/java/awt/print/PageFormat.html#PageFormat())()            Creates a default, portrait-oriented PageFormat. |

| **Method Summary** | |
| --- | --- |
| [Object](http://docs.google.com/java/lang/Object.html) | [**clone**](http://docs.google.com/java/awt/print/PageFormat.html#clone())()            Makes a copy of this PageFormat with the same contents as this PageFormat. |
| double | [**getHeight**](http://docs.google.com/java/awt/print/PageFormat.html#getHeight())()            Returns the height, in 1/72nds of an inch, of the page. |
| double | [**getImageableHeight**](http://docs.google.com/java/awt/print/PageFormat.html#getImageableHeight())()            Return the height, in 1/72nds of an inch, of the imageable area of the page. |
| double | [**getImageableWidth**](http://docs.google.com/java/awt/print/PageFormat.html#getImageableWidth())()            Returns the width, in 1/72nds of an inch, of the imageable area of the page. |
| double | [**getImageableX**](http://docs.google.com/java/awt/print/PageFormat.html#getImageableX())()            Returns the x coordinate of the upper left point of the imageable area of the Paper object associated with this PageFormat. |
| double | [**getImageableY**](http://docs.google.com/java/awt/print/PageFormat.html#getImageableY())()            Returns the y coordinate of the upper left point of the imageable area of the Paper object associated with this PageFormat. |
| double[] | [**getMatrix**](http://docs.google.com/java/awt/print/PageFormat.html#getMatrix())()            Returns a transformation matrix that translates user space rendering to the requested orientation of the page. |
| int | [**getOrientation**](http://docs.google.com/java/awt/print/PageFormat.html#getOrientation())()            Returns the orientation of this PageFormat. |
| [Paper](http://docs.google.com/java/awt/print/Paper.html) | [**getPaper**](http://docs.google.com/java/awt/print/PageFormat.html#getPaper())()            Returns a copy of the [Paper](http://docs.google.com/java/awt/print/Paper.html) object associated with this PageFormat. |
| double | [**getWidth**](http://docs.google.com/java/awt/print/PageFormat.html#getWidth())()            Returns the width, in 1/72nds of an inch, of the page. |
| void | [**setOrientation**](http://docs.google.com/java/awt/print/PageFormat.html#setOrientation(int))(int orientation)            Sets the page orientation. |
| void | [**setPaper**](http://docs.google.com/java/awt/print/PageFormat.html#setPaper(java.awt.print.Paper))([Paper](http://docs.google.com/java/awt/print/Paper.html) paper)            Sets the Paper object for this PageFormat. |

| **Methods inherited from class java.lang.**[**Object**](http://docs.google.com/java/lang/Object.html) |
| --- |
| [equals](http://docs.google.com/java/lang/Object.html#equals(java.lang.Object)), [finalize](http://docs.google.com/java/lang/Object.html#finalize()), [getClass](http://docs.google.com/java/lang/Object.html#getClass()), [hashCode](http://docs.google.com/java/lang/Object.html#hashCode()), [notify](http://docs.google.com/java/lang/Object.html#notify()), [notifyAll](http://docs.google.com/java/lang/Object.html#notifyAll()), [toString](http://docs.google.com/java/lang/Object.html#toString()), [wait](http://docs.google.com/java/lang/Object.html#wait()), [wait](http://docs.google.com/java/lang/Object.html#wait(long)), [wait](http://docs.google.com/java/lang/Object.html#wait(long,%20int)) |

| **Field Detail** |
| --- |

### LANDSCAPE

public static final int **LANDSCAPE**

The origin is at the bottom left of the paper with x running bottom to top and y running left to right. Note that this is not the Macintosh landscape but is the Window's and PostScript landscape.

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#java.awt.print.PageFormat.LANDSCAPE)

### PORTRAIT

public static final int **PORTRAIT**

The origin is at the top left of the paper with x running to the right and y running down the paper.

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#java.awt.print.PageFormat.PORTRAIT)

### REVERSE\_LANDSCAPE

public static final int **REVERSE\_LANDSCAPE**

The origin is at the top right of the paper with x running top to bottom and y running right to left. Note that this is the Macintosh landscape.

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#java.awt.print.PageFormat.REVERSE_LANDSCAPE)

| **Constructor Detail** |
| --- |

### PageFormat

public **PageFormat**()

Creates a default, portrait-oriented PageFormat.

| **Method Detail** |
| --- |

### clone

public [Object](http://docs.google.com/java/lang/Object.html) **clone**()

Makes a copy of this PageFormat with the same contents as this PageFormat.

**Overrides:**[clone](http://docs.google.com/java/lang/Object.html#clone()) in class [Object](http://docs.google.com/java/lang/Object.html) **Returns:**a copy of this PageFormat.**See Also:**[Cloneable](http://docs.google.com/java/lang/Cloneable.html)

### getWidth

public double **getWidth**()

Returns the width, in 1/72nds of an inch, of the page. This method takes into account the orientation of the page when determining the width.

**Returns:**the width of the page.

### getHeight

public double **getHeight**()

Returns the height, in 1/72nds of an inch, of the page. This method takes into account the orientation of the page when determining the height.

**Returns:**the height of the page.

### getImageableX

public double **getImageableX**()

Returns the x coordinate of the upper left point of the imageable area of the Paper object associated with this PageFormat. This method takes into account the orientation of the page.

**Returns:**the x coordinate of the upper left point of the imageable area of the Paper object associated with this PageFormat.

### getImageableY

public double **getImageableY**()

Returns the y coordinate of the upper left point of the imageable area of the Paper object associated with this PageFormat. This method takes into account the orientation of the page.

**Returns:**the y coordinate of the upper left point of the imageable area of the Paper object associated with this PageFormat.

### getImageableWidth

public double **getImageableWidth**()

Returns the width, in 1/72nds of an inch, of the imageable area of the page. This method takes into account the orientation of the page.

**Returns:**the width of the page.

### getImageableHeight

public double **getImageableHeight**()

Return the height, in 1/72nds of an inch, of the imageable area of the page. This method takes into account the orientation of the page.

**Returns:**the height of the page.

### getPaper

public [Paper](http://docs.google.com/java/awt/print/Paper.html) **getPaper**()

Returns a copy of the [Paper](http://docs.google.com/java/awt/print/Paper.html) object associated with this PageFormat. Changes made to the Paper object returned from this method do not affect the Paper object of this PageFormat. To update the Paper object of this PageFormat, create a new Paper object and set it into this PageFormat by using the [setPaper(Paper)](http://docs.google.com/java/awt/print/PageFormat.html#setPaper(java.awt.print.Paper)) method.

**Returns:**a copy of the Paper object associated with this PageFormat.**See Also:**[setPaper(java.awt.print.Paper)](http://docs.google.com/java/awt/print/PageFormat.html#setPaper(java.awt.print.Paper))

### setPaper

public void **setPaper**([Paper](http://docs.google.com/java/awt/print/Paper.html) paper)

Sets the Paper object for this PageFormat.

**Parameters:**paper - the Paper object to which to set the Paper object for this PageFormat. **Throws:** NullPointerException - a null paper instance was passed as a parameter.**See Also:**[getPaper()](http://docs.google.com/java/awt/print/PageFormat.html#getPaper())

### setOrientation

public void **setOrientation**(int orientation)  
 throws [IllegalArgumentException](http://docs.google.com/java/lang/IllegalArgumentException.html)

Sets the page orientation. orientation must be one of the constants: PORTRAIT, LANDSCAPE, or REVERSE\_LANDSCAPE.

**Parameters:**orientation - the new orientation for the page **Throws:** [IllegalArgumentException](http://docs.google.com/java/lang/IllegalArgumentException.html) - if an unknown orientation was requested**See Also:**[getOrientation()](http://docs.google.com/java/awt/print/PageFormat.html#getOrientation())

### getOrientation

public int **getOrientation**()

Returns the orientation of this PageFormat.

**Returns:**this PageFormat object's orientation.**See Also:**[setOrientation(int)](http://docs.google.com/java/awt/print/PageFormat.html#setOrientation(int))

### getMatrix

public double[] **getMatrix**()

Returns a transformation matrix that translates user space rendering to the requested orientation of the page. The values are placed into the array as { m00, m10, m01, m11, m02, m12} in the form required by the [AffineTransform](http://docs.google.com/java/awt/geom/AffineTransform.html) constructor.

**Returns:**the matrix used to translate user space rendering to the orientation of the page.**See Also:**[AffineTransform](http://docs.google.com/java/awt/geom/AffineTransform.html)

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/PageFormat.html) | [**Tree**](http://docs.google.com/package-tree.html) | [**Deprecated**](http://docs.google.com/deprecated-list.html) | [**Index**](http://docs.google.com/index-files/index-1.html) | [**Help**](http://docs.google.com/help-doc.html) | | --- | --- | --- | --- | --- | --- | --- | --- | | | ***Java™ Platform***  ***Standard Ed. 6*** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| [**PREV CLASS**](http://docs.google.com/java/awt/print/Pageable.html)   [**NEXT CLASS**](http://docs.google.com/java/awt/print/Paper.html) | [**FRAMES**](http://docs.google.com/index.html?java/awt/print/PageFormat.html)    [**NO FRAMES**](http://docs.google.com/PageFormat.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | [FIELD](#3znysh7) | [CONSTR](#2et92p0) | [METHOD](#tyjcwt) | DETAIL: [FIELD](#1t3h5sf) | [CONSTR](#3rdcrjn) | [METHOD](#lnxbz9) |

[Submit a bug or feature](http://bugs.sun.com/services/bugreport/index.jsp)

For further API reference and developer documentation, see [Java SE Developer Documentation](http://docs.google.com/webnotes/devdocs-vs-specs.html). That documentation contains more detailed, developer-targeted descriptions, with conceptual overviews, definitions of terms, workarounds, and working code examples.

Copyright 2006 Sun Microsystems, Inc. All rights reserved. Use is subject to [license terms](http://docs.google.com/legal/license.html). Also see the [documentation redistribution policy](http://java.sun.com/docs/redist.html).